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Abdelrahman, W.; McIntyre, G.; Dolan, O.

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# So you want to be a Mohs surgeon?

W Abdelrahman<sup>1</sup>, G McIntyre<sup>2</sup>, O Dolan<sup>1</sup>

<sup>1</sup>Department of Dermatology, Royal Victoria Hospital, Northern Ireland BT12 6BA <sup>2</sup>Mohs surgery clinical fellow, Ninewells hospital and medical school, Dundee

Correspondence to: Dr Wedad Abdelrahman  
E-mail: wedadabdelrahman@doctors.org.uk

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## WHAT IS MOHS MICROGRAPHIC SURGERY AND WHAT DOES IT INVOLVE?

Mohs micrographic surgery (MMS) is a highly specialised surgical technique performed by dermatologists under local anaesthesia and used for the treatment of complex skin cancers. The technique was first developed by Frederic Mohs in the 1930s. The process involves taking horizontal sections of skin tissue which are then carefully mapped, colour-coded and examined microscopically in real-time. This technique differs from other surgical excision techniques which involve examination of vertical sections. During the process of MMS, 100% of the tissue margins are evaluated to ensure that the tumour is completely clear prior to repair of the skin defect. It therefore results in the highest cure rates for complex skin cancer (up to 99%) and minimises removal of normal tissue. Depending on the size of the defect post MMS, there are often several repair options available which should be discussed with the patient for most satisfactory results. These include; secondary intention healing, direct linear closure, use of a local skin flap or skin graft repair. MMS is recognised as the gold standard treatment for high-risk basal cell carcinoma (BCC). 'High Risk' BCCs have a greater risk of recurrence and are typically located on the central face, periorbital region, nose, lips and ears, where it is essential to preserve function and cosmetic appearance. It is also indicated for other aggressive skin tumour types including; squamous cell carcinoma, dermatofibrosarcoma protuberans, microcystic adnexal carcinoma, lentigo maligna and extramammary Pagets disease.

## ADVANTAGES AND DISADVANTAGES OF MMS AS A SUBSPECIALTY?

MMS is a very meticulous staged procedure. It is performed in an outpatient setting and can take several hours to achieve complete clearance of any skin cancer. In patients with deep

infiltrating tumours the procedure may be prolonged and it can become more difficult to remove a large tumour in one day. This is often disappointing for both the patient and clinician and the larger the resulting defect, the more challenging it is to repair. Despite these obstacles, MMS is a highly rewarding procedure for the operator, allowing confident removal of 99-100% of a skin cancer on a site where cosmetic appearance is of importance. It also involves the use of more advanced surgical techniques to repair the resulting defect. If you are a hands-on person and have good diagnostic skills but you also enjoy managing patients with other complex acute and chronic conditions, then a career in dermatology with a sub-specialist interest in MMS may be the path for you.

## BECOMING A MOHS SURGEON

Mohs surgeons are Dermatologists who have performed additional fellowship training to become experts in the field of MMS, skin cancer management and dermatological surgery. After obtaining formal medical qualification, a doctor interested in a career in dermatology must complete 2 years of foundation training (FY1, FY2) followed by a further 2 years of core medical training (CMT). During this time, membership of the Royal College of Physicians (MRCP) examinations must be obtained before applying for a 4-year training post in Dermatology. Following award of certificate of completion of training (CCT), an additional year may be granted to undertake a fellowship to gain sub-specialisation.

There are various specialist centers across the UK which offer post CCT Mohs Fellowships. These are competitive posts offered to motivated trainees, demonstrating an interest and flare for this sub-specialty. Other fellowships may be undertaken outside the UK, in Europe and the USA, however additional qualifications are often a requisite to work abroad. It is a recommendation to complete at least 1 years Mohs fellowship, during which time the trainee will perfect their skills in the Mohs technique, which requires manual dexterity and precision alongside learning the steps involved in the processing of frozen sections and histological interpretation of slides, and developing advanced skills in surgical repair procedures.

## THE FUTURE: WHY BECOME A MOHS SURGEON

With the continued rise in the incidence of skin cancer particularly throughout the UK, dermatology is becoming more of a surgical specialty and with many skin cancers arising on the head and neck area, there is a high demand for colleagues with an interest in cutaneous surgery, who can offer the best management for our patients. MMS is a very intricate and unique subspecialty, and although challenging, it is highly rewarding and offers a lot, especially in terms of overall clinician and patient satisfaction.